

STATE OF SOUTH CAROLINA )  
COUNTY OF SPARTANBURG )

**SUPPLEMENTAL AFFIDAVIT OF DR. BRIAN G. MORIN**

I, Brian G. Morin, after being duly sworn on oath, depose and say that:

I am an inventor of the inventor of the invention disclosed and claimed in the patent application entitled "Textile Fabric With Particle Attracting Finish", Serial No. 09/178,396, filed October 23, 1998.

My educational background and professional experience are detailed in the affidavit previously filed herein dated October 24, 2000.

In response to the United States Patent and Trademark Office action dated January 11, 2001, I was asked to develop a comparative example based on the disclosure of Yahiaoui et al., U.S. Patent No. 5,814,567. In particular, I was asked to test woven and knitted substrate fabrics.

## Comparative Testing

A woven and knitted polyester fabric were each coated with three different hydrophilic polymeric materials according to Yahiaoui et al. The coated fabrics were then tested for particle release according to standard tests used to evaluate cleanroom wipers.

### Fabric Substrates

Fabric A was a 100% polyester circular knit fabric made from 70 denier, 34 filament yarn, and weighing approximately 3.8 ounces per square yard.

Fabric B was a 100% polyester woven fabric constructed of spun yarn (staple), and weighing approximately 6.5 ounces per square yard.

### Hydrophilic Polymer Coating

Hydroxypropylmethylcellulose ("h.p.m.c."): Dow Methocel K15M

Hydroxyethylcellulose ("h.e.c."): Aqualon Natrosol 99-250 LR.

**Methylcellulose: Dow Methocel A4M**

The fabrics were immersed in a 0.25 wt. % aqueous solution of the hydrophilic polymer, removed and the excess liquid was squeezed out by hand. The fabric was dried

in an oven of 60°C for one half-hour. The add-on of hydrophilic polymer coating was approximately 0.25 wt. % for both Fabric A and Fabric B.

### **Testing**

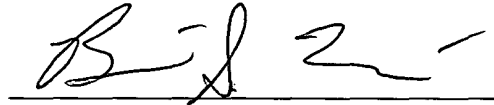
Each of the coated fabrics was tested for (a) particle count of particles greater than 0.5 microns; and (b) particle count of particles greater than 5 microns, both according to Biaxial Shake Test IEST-RP-CP-CC004.2. The experiment was performed in duplicate, designated Run 1 and Run 2. The results are set forth in Table 1 below.

**Table 1**

<b>Fabric</b>	<b>Coating</b>	<b>Run # 1</b>	<b>Particles &gt;0.5 microns/m<sup>2</sup></b>	<b>Particles &gt;5 microns/m<sup>2</sup></b>
A (knit)	h.p.m.c	1	3.20 billion	17.1 million
A (knit)	h.p.m.c	2	3.13 billion	15.1 million
A (knit)	h.p.m.c	Average	3.16 billion	16.1 million
B (woven)	h.p.m.c	1	5.92 billion	4.83 million
B (woven)	h.p.m.c	2	7.82 billion	8.84 million
B (woven)	h.p.m.c	Average	6.86 billion	6.82 million
A (knit)	h.e.c.	1	1.23 billion	104 million
A (knit)	h.e.c.	2	747 million	58 million
A (knit)	h.e.c.	Average	987 million	81.2 million
B (woven)	h.e.c.	1	1.45 billion	14.3 million
B (woven)	h.e.c.	2	2.3 billion	25.9 million
B (woven)	h.e.c.	Average	1.88 billion	20.1 million
A (knit)	methylcellulose	1	1.45 billion	8.6 million
A (knit)	methylcellulose	2	1.54 billion	10.5 million
A (knit)	methylcellulose	Average	1.5 billion	9.55 million
B (woven)	methylcellulose	1	9.27 billion	11.2 million
B (woven)	methylcellulose	2	8.39 billion	10.3 million
B (woven)	methylcellulose	Average	8.83 billion	10.7 million

The lowest particle counts, for particles greater than 0.5 microns per square meter, was 987 million. The lowest particle count, for particles greater than 5 microns per square meter, was 6.82 million. All of the values were well outside the range claimed in the above reference patent application.

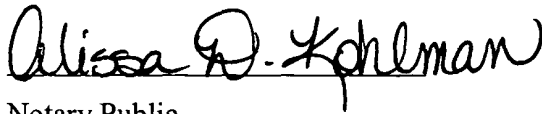
I make this affidavit in support of prosecution of my invention entitled "Textile Fabric With Particle Attracting Finish."



Brian G. Morin, Ph.D.

Sworn to and subscribed before me,

This 1 day of June, 2001.



Notary Public

My Commission Expires  
July 31st, 2010